

Bridge Inspection Report

Bedford 151/151

Date of Inspection: 03/09/2016

NH114

Date Report Sent: 4/6/2016

Over

 Picture taken during inspection

BOWMAN BROOK

Owner: NHDOT

Recommended Postings:

Weight: No Posting Required

 Weight Sign OK

Width: Not Required

 Width Sign OK

Primary Height Sign Recommendation: None

Clearances: Over:

 Height Signs OK

Optional Centerline Height Sign Rec: None

(Feet) Under: 0.00

Condition: State Redlist**Structure Type and Materials:**

Deck: N N/A (NBI)

Number of Spans Main Unit: 1

Superstructure: N N/A (NBI)

Number of Approach Spans: 0

Substructure: N N/A (NBI)

Culvert: 3 Serious

Sufficiency Rating: 54%**NBI Status:** Not Applicable

Bridge Rail: N/A or Not Required

NH Bridge Type: Metal Pipe

Rail Transition: N/A or Not Required

Deck Type: No Deck (N/A - NBI)

Bridge Approach Rail: Meets Standards

Wearing Surface: No Deck (N/A - NBI)

Approach Rail Ends: Meets Standards

Membrane: No Deck (N/A - NBI)

Bridge Dimensions:

Deck Protection: No Deck (N/A - NBI)

Length Maximum Span: 10.0 ft

Pavement thickness: 3.0 in

Left Curb/Sidewalk Width: 0.0 ft

Curb Reveal: Not Applicable

Width Curb to Curb: 0.0 ft

Plan Location: INSPECTION FOLDER

Approach Roadway Width (W/ Shoulders): 45.3 ft

Total Bridge Length: 10.0 ft

Right Curb/Sidewalk Width: 0.0 ft

Total Bridge Width: 0.0 ft

Median: No median

Bridge Skew: 45.00 °

Bridge Service:

Type of Service on Bridge: Highway

Year Built: 1964

Type of Service under: Waterway

Year Rebuilt: Not Rebuilt

Lanes on bridge: 2

Detour Length: 0.0 mi

Lanes Under: NA

AADT: 22000

Percent Trucks: 5 %

Year of AADT: 2014

Future AADT: 32560

Year of Future AADT: 2035

Bridge Inspection Report

Bedford 151/151

Federal or State Definition Bridge: NH Definition Bridge
 Roadway Functional Class: Urban Principal Arterial
 New Hampshire Highway System and Class: Primary-DOT Maintained
 Eligibility for the National Register of Historic Places: Possibly eligible
 Traffic Direction: Two-way traffic

National Bridge Inventory (NBI) Appraisal Ratings:

Deck Geometry: Not Applicable (NBI)
 Underclearances: Not Applicable (NBI)
 Approach Alignment: Equal Minimum Criteria
 Structural Evaluation: Intolerable, Correctable
 Channel/Channel Protection: Protection Undermined
 Waterway Adequacy: Minimum Tolerable
 Bridge Scour Critical Status: Stable, action needed
 Riprap Condition: Fair Condition
 Debris Present: Debris Present
 STONE AND GRAVEL DEBRIS INSIDE BARREL
 Date of Underwater Inspection: Not Applicable

AASHTO CoRe Element Condition State Data:

No.	Description	Env.	Material Notes and Condition Notes
240	Culvert (includes Steel, Aluminum and Galvanized)	Severe	MP- 7.5' DIA. AT 45 DEGREE SKEW = 10' CLEAR SPAN. CORR. 6" X 2" X 1/8" THICK. 5'-6" OF EARTH COVER. MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE.
363	Section Loss Condition Warning Flag	Severe	RADIUS- 55% TO 65% SECTION LOSS IN 1.5 LENGTH NEAR SOUTHWEST END. 20% TO 30% SECTION LOSS IN 1' LENGTH 40' FROM SOUTHWEST END. INVERT HOLED WITH 40% SECTION LOSS IN AREAS. SECTION LOSS APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW.

No.	Description	Env.	Quantity	Units	State 1	State 2	State 3	State 4	State 5
240	Culvert (includes Steel, Aluminum and Galvanized)	Severe	225	(LF)	0 %	0 %	0 %	100 %	
363	Section Loss Condition Warning Flag	Severe	1	(EA)	0 %	0 %	100 %	0 %	

Bridge Notes:

NEW BRIDGE TO INVENTORY. ADDED TO STATE RED LIST 4/27/2009. BANK EROSION AND PART OF INVERT UNDER TRAVELWAY ON EAST REPAIRED BY B.O.B.M. IN 2014.

11/13/15- LOCATIONS OF SECTION LOSS HAS INCREASED BUT SECTION LOSS PERCENTS HAVE NOT CHANGED SINCE 3/16/15 INSPECTION.

Approach and Roadway Notes: APPROACH ASPHALT- MEDIUM CRACK AT NORTH, LONGITUDINAL CRACK ALONG WHITE LINE WITH LIGHT SETTLEMENT ON EAST BREAKDOWN LANE; MOST CRACKS ARE SEALED. W-BEAM RAIL- MINOR DAMAGE.

Bridge Inspection Report

Bedford 151/151

Inspection History:

Inspection Date: 03/09/2016

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL inspection comments-

CULVERT: MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

Inspection Date: 11/13/2015

Inspector: KLM

Deck: N N/A (NBI)

Notes:

KLM inspection comments-

CULVERT: MP- INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. THIN AND SCATTERED HOLES ON RADIUS ABOVE REPAIRED INVERT. PAST REPAIRED INVERT; SCATTERED HOLES, EXPOSED FILL WITH SECTION LOSS UP TO 55% TO 65% IN 1.5' LENGTH ON RADIUS. INVERT- DEBRIS COVERED AND HOLED UP TO 40% +/- IN AREAS. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

PICTURES: D175-

27. RADIUS HOLED AND FILL EXPOSED WITH 55% TO 65% SECTION LOSS IN 1.5' LENGTH ON SOUTHWEST END.

28. RADIUS HOLED AND FILL EXPOSED WITH 20% TO 30% SECTION LOSS 40' FROM SOUTHWEST END.

29. RADIUS HOLE AND FILL EXPOSED NEAR SOUTH MID SPAN.

30. RADIUS HOLED ABOVE REPAIRED AREA, NORTHEAST.

Inspection Date: 03/16/2015

Inspector: KLM

Deck: N N/A (NBI)

Notes:

KLM inspection comments-

CULVERT: MP- INVERT PARTIALLY COVERED WITH GRAVEL STARTING AT WEST; AREAS VISIBLE ARE HOLED 65% AND RADIUS HOLED IN RANDOM LOCATIONS, APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW. INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT AND HOLES IN RADIUS AT EAST. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. INVERT THINNED THROUGHOUT. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

Inspection Date: 11/05/2014

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL inspection comments-

CULVERT: MP- INVERT PARTIALLY COVERED WITH GRAVEL STARTING AT WEST; AREAS VISIBLE ARE HOLED 65% AND RADIUS HOLED IN RANDOM LOCATIONS, APPEARS NOT TO BE UNDER TRAVELWAY DUE TO SKEW. INVERT REPAIRED WITH A CONCRETE SLURRY AND PEA STONE MIX COVERING INVERT AND HOLES IN RADIUS AT EAST. REPAIRS START APPROXIMATELY 10' IN FROM EAST END AND CONTINUE FOR 90' TO EXTEND UNDER TRAVELWAY. INVERT THINNED THROUGHOUT. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

PICTURES: D153-

71. BANK EROSION REPAIRED AT EAST OUTLET.

72. RIP RAP PLACED AT EAST OUTLET AROUND MP.

73. VIEW OF REPAIRED INVERT AT EAST.

Bridge Inspection Report

Bedford 151/151

Inspection History:

Inspection Date: 03/17/2014

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL Inspection comments-

CULVERT: MP- INVERT AT EAST (DOWNSTREAM) HOLED 2' WIDE X 10' LONG. HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. VOIDS AT DOWNSTREAM OUTLET, 6" HIGH WITH 1' TO 2' OF PENETRATION. INVERT- SECTION OF INVERT MISSING 65' IN LENGTH FROM EAST END. SEVERAL FEET OF MISSING INVERT SECTIONS APPEAR TO BE UNDER THE TRAVELWAY. APPROX. 75' TO WEST END HAS 75% TO 85% SECTION LOSS. RADIUS- HOLED ON SOUTHEAST END 20' TO 25' IN LENGTH. THINNED THROUGHOUT. EROSION ON SLOPE AT DOWN STREAM SIDE.

PICTURE: D134-

43. LIGHT SETTLEMENT IN BREAKDOWN LANE ON EAST OUTLET.

Inspection Date: 11/13/2013

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL Inspection comments-

CULVERT: MP- INVERT AT EAST (DOWNSTREAM) HOLED 2' WIDE X 10' LONG. HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. VOIDS AT DOWNSTREAM OUTLET, 6" HIGH WITH 1' TO 2' OF PENETRATION. INVERT- SECTION OF INVERT MISSING 65' IN LENGTH FROM EAST END. SEVERAL FEET OF MISSING INVERT SECTIONS APPEAR TO BE UNDER THE TRAVELWAY. APPROX. 75' TO WEST END HAS 75% TO 85% SECTION LOSS. RADIUS- HOLED ON SOUTHEAST END 20' TO 25' IN LENGTH. THINNED THROUGHOUT. EROSION ON SLOPE AT DOWN STREAM SIDE.

Inspection Date: 04/30/2013

Inspector: KLM

Deck: N N/A (NBI)

Notes:

KLM- Inspection comments-

CULVERT: MP- INVERT AT EAST (DOWNSTREAM) HOLED 2' WIDE X 10' LONG. HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. SLIGHT SAG IN ROOFLINE AT SOUTH. DENTS IN ROOFLINE NEAR CENTERLINE. VOIDS AT DOWNSTREAM OUTLET, 6" HIGH WITH 1' TO 2' OF PENETRATION. INVERT- SECTION OF INVERT MISSING 65' IN LENGTH FROM EAST END. SEVERAL FEET OF MISSING INVERT SECTIONS APPREARS TO BE UNDER THE TRAVELWAY. APPROX. 75' TO WEST END HAS 75% TO 85% SECTION LOSS. RADIUS- HOLED ON SOUTHEAST END 20' TO 25' IN LENGTH. THINNED THROUGH OUT. EROSION ON SLOPE AT DOWN STREAM SIDE.

PICTURES: D113-

78. INVERT MISSING AND LIFTED IN A 6' AREA UNDER TRAVELWAY.

79. RADIUS HOLED ON SOUTHEAST.

Inspection Date: 03/14/2013

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL Inspection comments-

CULVERT: MP- LARGE HOLE AT INVERT AND SIDE AT EAST. HOLED THROUGHOUT INVERT. MODERATE TO HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

PICTURE: D108-53. EROSION HOLE ON BACKSIDE OF GUARDRAIL ON NORTHEAST.

Inspection Date: 11/15/2012

Inspector: NJL

Deck: N N/A (NBI)

Notes:

NJL Inspection comments-

CULVERT: MP- LARGE HOLE AT INVERT AND SIDE AT EAST. HOLED THROUGHOUT INVERT. MODERATE TO HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.

Super: N N/A (NBI)

Substr: N N/A (NBI)

Culvert: 3 Serious

Bridge Inspection Report

Bedford 151/151

Inspection History:

Inspection Date: 03/15/2012	Inspector: MHC	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>MHC inspection comments-</i> <i>CULVERT: MP- LARGE HOLE AT INVERT AND SIDE AT EAST. HOLED THROUGHOUT INVERT. MODERATE TO HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
PICTURES: D085 6. DENTS IN ROOFLINE. 7. LARGE HOLE AT INVERT. 8. LARGE HOLE AT NORTHEAST OUTLET. 9. LARGE HOLE AT INVERT AND SIDE AT EAST.		
Inspection Date: 11/21/2011	Inspector: MHC	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>MHC inspection comments-</i> <i>CULVERT: MP- HOLED THROUGHOUT INVERT. MODERATE TO HEAVY RUST, SCALE, AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
PICTURES: D079 7. RUST, SCALE, AND HOLES IN RADIUS. 8. LARGE HOLE AT DOWNSTREAM OUTLET. 9. LARGE HOLE IN INVERT DOWNSTREAM. 10. VOIDED AT OUTLET. 11. EROSION OVER PIPE DOWNSTREAM.		
Inspection Date: 03/03/2011	Inspector: KLM	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>KLM inspection comments-</i> <i>CULVERT: MP- HOLED THROUGHOUT INVERT. HEAVY CORROSION AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
Inspection Date: 11/24/2010	Inspector: NJL	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>NJL inspection comments-</i> <i>CULVERT: MP- HOLED THROUGHOUT INVERT. HEAVY CORROSION AND HOLES ON SIDES OF BARREL. HOLED THROUGHOUT INVERT. TOP OF MP ON MIDSPAN HAS A 2' X 2' BULGE WITH NO PLATE GAP OR LEAKING. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
Inspection Date: 03/10/2010	Inspector: FNM	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>FNM- Inspection comments-</i> <i>CULVERT: MP- HOLED THROUGHOUT INVERT. HEAVY CORROSION AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
Inspection Date: 11/10/2009	Inspector: KLM	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>KLM- inspection comments-</i> <i>CULVERT: MP- HOLED THOUGH OUT INVERT. HEAVY CORROSION AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		
Inspection Date: 04/27/2009	Inspector: klm	Deck: N N/A (NBI) Super: N N/A (NBI) Substr: N N/A (NBI) Culvert: 3 Serious
Notes: <i>KLM- inspection comments-</i> <i>CULVERT: MP- EXTREME HOLES THOUGH OUT INVERT. HEAVY CORROSION AND HOLES ON SIDES OF BARREL. EROSION ON SLOPE AT DOWN STREAM SIDE.</i>		

PICTURES: D032: 19 thru 25

Bridge Inspection Report

Bedford 151/151

Copy Distribution:

- (2) Bureau of Municipal Highways
- (3) Bureau of Municipal Highways
- Bureau of Turnpikes

- Border State
- Bureau of Rail and Transit
- Army Corps Of Engineers
- Railroad

- Dept. of Res. and Econ. Dev.
- Dept. of Environmental Services
- USDA Forest Service
- Bureau of Traffic